

Information on E-Cigarettes

Healthy Living Initiative

E-cigarettes

E-cigarettes are battery-operated devices that have cartridges, typically filled with liquid nicotine and other chemicals and flavorings. Nicotine is the highly addictive chemical found in traditional tobacco products. The e-cigarette heats up and turns the nicotine into a “vapor” that can be inhaled in a way that simulates smoking.¹ The use of an e-cigarette is often referred to as “vaping.”



liquid

Health risks of e-cigarettes are still unknown

- There have been no long-term studies conducted on e-cigarettes so the lasting impact on the health of users or those exposed to secondhand vapor is unknown.
- E-cigarettes are unregulated. Users have no way of knowing what types or concentrations of potentially harmful chemicals are found in e-cigarettes or how much nicotine they are inhaling.^{2,3} Studies have found that similar to traditional cigarettes, heavy metals, carcinogens, and silicate, including nanoparticles, have been found in e-cigarette vapor.^{4,5,6}
- The FDA warns that the safety of e-cigarettes has not been fully studied and the World Health organization says “consumers should be strongly advised not to use any of these products.”^{7,8}

E-cigarettes may be especially appealing to youth and pose higher health risks.

- New data from the Centers for Disease Control and Prevention shows that the percentage of middle and high school students using e-cigarettes has more than doubled from 2011 to 2012.⁹
- E-cigarette fluid is marketed in fruit, candy, and dessert flavors that are known to appeal to youth, heightening concerns that e-cigarettes will attract youth users.¹⁰
- Youth are at a potentially higher risk of negative health consequences because nicotine levels across products vary and without federal regulation, may be inaccurate. This makes them especially dangerous for youth because the nicotine in the e-liquid:
 - negatively impacts adolescent brain development;¹¹
 - can lead youth and young adults to become addicted and to start using conventional cigarettes or other tobacco products;¹²



E-cigarettes have not been proven effective as a smoking cessation aid

- E-cigarettes are an untested product and have not been proven to be a safe alternative to smoking or promote successful long-term quitting.

Minnesota laws and Minneapolis ordinances related to e-cigarettes

- E-cigarettes have been included under the definition of “tobacco products” in Minnesota so they are taxed as tobacco products and selling them to minors is illegal.¹³
- E-cigarette stores are licensed as tobacco retail outlets in Minneapolis and customers are allowed to sample products before they purchase them.
- Vaping in indoor public places is currently legal because e-cigarettes do not meet the definition of “smoking” under Minnesota’s Clean Indoor Air Act or the Minneapolis Clean Indoor Air Ordinance.
- Many communities in Minnesota have already taken steps to regulate e-cigarette sales and use: placing moratoriums on e-cigarette stores and banning their use in indoor places.
- Many restaurants, businesses, and other organizations prohibit e-cigarette use in their facilities because of confusion and concerns about the potential health effects of e-cigarettes.¹⁴

For more information, contact:

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¹ Press Release, U.S. Food & Drug Admin. [FDA], *FDA and Public Health Experts Warn About Electronic Cigarettes* (July 22, 2009), <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/2009/ucm173222.htm>.

² U.S. Food and Drug Administration, Division of Pharmaceutical Analysis. Evaluation of e-cigarettes. <http://www.fda.gov/downloads/drugs/scienceresearch/ucm173250.pdf>. Accessed September 13, 2013.

³ U.S. Food and Drug Administration. FDA and Public Health Experts Warn About Electronic Cigarettes. <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm173222.htm>. Published July 22, 2009. Accessed September 13, 2013.

⁴ Williams, M, Villarreal A, Bozhilov K, Lin S, Talbot, P. Metal and silicate particles including nanoparticles are present in electronic cigarette cartomizer fluid and aerosol. *PLoS ONE*. 2013;8 (3), e57987. <http://www.plosone.org/article/info:doi/10.1371/journal.pone.0057987>. Accessed September 13, 2013.

⁵ Goniewicz, ML, Knysak, J, Gawron, M, et al. Levels of selected carcinogens and toxicants in vapour from electronic cigarettes. *Tobacco Control*. 2013. doi:10.1136/tobaccocontrol-2012-050859

⁶ Schripp, T, Markewitz, D, Uhde, E, Salthammer, T. Does e-cigarette consumption cause passive vaping? *Indoor Air*. 2013;23(1), 25-31. doi:10.1111/j.1600-0668.2012.00792.x

⁷ FDA, *News & Events: Electronic Cigarettes (e-Cigarettes)*, <http://www.fda.gov/newsevents/publichealthfocus/ucm172906.htm> (last visited Sept. 18, 2013).

⁸ World Health Organization, Tobacco Free Initiative, Questions and Answers on Electronic Cigarettes or Electronic Nicotine Delivery Systems (ENDS) (July 9, 2013), http://www.who.int/tobacco/communications/statements/electronic_cigarettes/en/index.html (emphasis in original).

⁹ Centers for Disease Control and Prevention [CDC], *Notes from the Field: Electronic Cigarette Use Among Middle and High School Students — United States, 2011–2012*, 62 *Morbidity and Mortality Weekly Report* 729, 729 (2013), <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6235a6.htm>.

¹⁰ US Surgeon General. Preventing Tobacco Use Among Youth and Young Adults. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention; 2012.

¹¹ See, e.g., Jennifer B. Dwyer et al., *The Dynamic Effects of Nicotine on the Developing Brain*, 122 *Pharmacology & Therapeutics* 125 (2009).

¹² FDA, *News & Events: Electronic Cigarettes*, *supra* note 3.

¹³ Minnesota State Legislature. Minnesota Session Laws. <https://www.revisor.mn.gov/laws/?key=57965>. Accessed September 13, 2013.

¹⁴ See, e.g., Jenna Ross, *Duluth Says No to E-cigarettes; State Says It Will Consider Options*, *Star Tribune* (Sept. 11, 2013), available at <http://www.startribune.com/local/223235121.html>; Andrew Wagaman, *E-cigarettes Going Up in Vapor*, *Star Tribune* (July 12, 2013), available at <http://m.startribune.com/lifestyle/?id=215258211&c=y>.

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